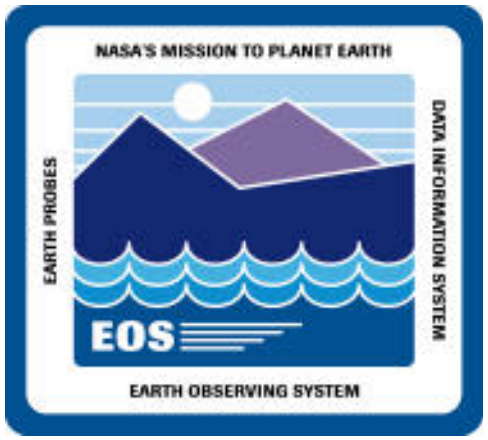

Release B ICD Status

Robin Whitehurst

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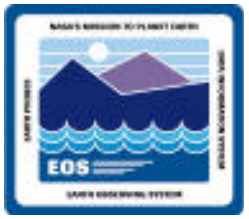
25 April 1996

Roadmap



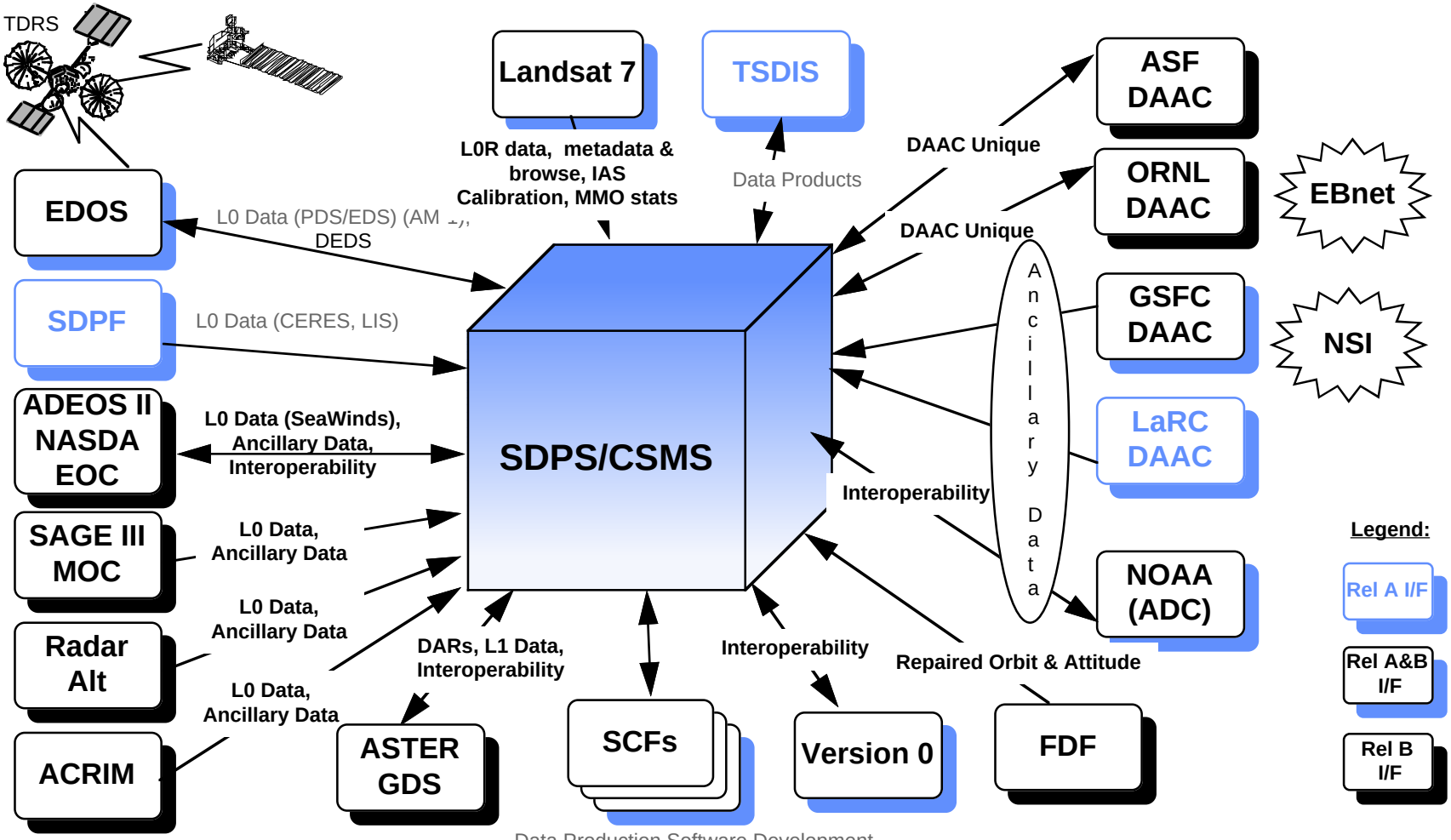
Summary description of Release B external interfaces

ICD Delivery Status, Work Off and Closure Plans

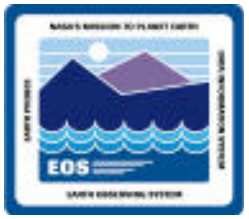
Release B Future Missions - Undefined Interfaces

Steps to Closure

SDPS/CSMS Release B External Interface Diagram



Release B External ICDs Updates From Release A



Landsat 7

- **Ingest LPS L0R data, metadata and browse (HDF-EOS, DAN protocol)**
- **Ingest IGS metadata and browse (media with Delivery Record)**
- **Ingest IAS calibration coefficients (interactive network ingest)**
- **Exchange with MMO system management & product cost information**
- **Physical ECS interface is at the EDC DAAC**

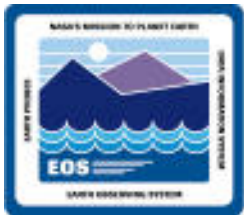
SCF

- **Ingest Special Products (HDF-EOS, interactive network ingest or media)**

NOAA (ADC)

- **Ingest HIRS/2 Ancillary Data at the LaRC DAAC (polling interface)**
- **Support 2 way interoperability (NOAA V0 protocol to ECS gateway)**

Release B External ICDs Updates From Release A (cont.)



GSFC DAAC

- **Ingest Additional NCEP (previously NMC) Ancillary Data (polling with Delivery Record interface) via Data Link Server/Larry.**

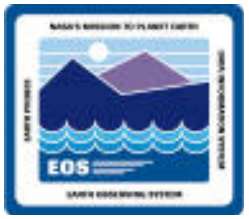
NSI

- **JPL, ASF, and NSIDC ECS DAACs interface to NSI**
  - **Exchange Network Management Data**

V0

- **ECS ESST (V1 protocols) is added - - ESST interoperates via V0 Gateway (a part of ECS) with V0 IMS Servers.**

Release B External ICDs New for Release B



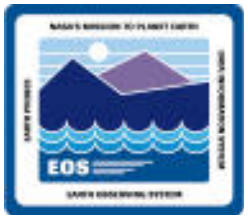
ASTER GDS (SDPS)

- **User submit and status DARs (ECS GUI to ASTER Client)**
- **Ingest ASTER L1 data at the EDC DAAC (media with Delivery Record)**
- **Exchange system management data (SNMP)**
- **Interoperate (2 way) with GDS (ECS V1 protocol to GDS gateway)**

SAGE III Mission Operations Center (MOC) - Preliminary

- **Ingest L0 Data, Definitive Orbit Data and Metadata (polling with Delivery Record interface)**
- **Physical ECS interface is at the LaRC DAAC**

Release B External ICDs New for Release B (cont.)



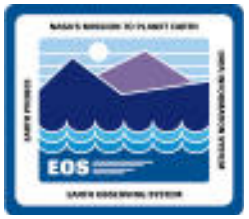
ASF DAAC - Preliminary

- Interfaces via ECS APIs
  - Interface with ASF supplied Production and Planning Systems
  - Interface to ASF Film Processing Subsystem
  - Ingest Flight Agency Interface Plans and Schedules (ERS, JERS, RADARSAT)
  - Receive system management data
- Interoperate (1 way) with CSA RADARSAT catalog

ORNL DAAC

- Interfaces are via ECS APIs
  - Interface to ORNL supplied Archive System

Release B External ICDs Support Interfaces



Updates from Release A - Ingest PDS/EDS from EDOS (polling with Delivery Record interface)

EDOS

- **Exchange Back-up Data**
- **Physical ECS interface is at the GSFC and the LaRC DAACs**
- **Based on development and test schedule for Release B - ICD must be final 6/96**

New for Release B

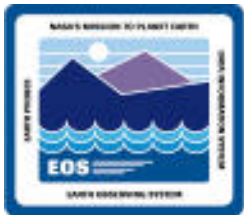
FDF

- **FDF provides ECS repaired orbit and attitude subroutines (new CCR in work)**
- **FDF provides ECS repaired orbit and attitude data**
- **Physical ECS interface is at the GSFC DAAC**
- **ICD due 5/96**

EBnet

- **Physical communications specification**
- **Exchange Network Management data**
- **ICDs due 4/96**

ICD Delivery Status, Work Off and Closure Plans



- ICD Delivery Status
  - Ten ECS Release B ICDs delivered to ESDIS - (two preliminary)
- Work Off Plans
  - Six ECS ICDs contain Work Off Plans in the Appendices
  - Work Off Plan contains:

    Issue Priority, Issue Description, Work Off Plan Task, Projected Resolution Date and Risk Assessment

    Priority “A” Category = Potential Design impact; e.g., unresolved interface

ECS “Led” ICDs

ICD	Priority "A" Category
ASF	7
ASTER	8
GSFC DAAC	1
LANDSAT 7	1
NOAA	1
ORNL	2

External I/F “Led” ICDs”

ICD	Priority "A" Category
FDF	1
EDOS	7

ICD Delivery Status, Work Off and Closure Plans (cont.)

- **Work Off Plan Examples (Priority A)**

  ASTER

  Description: Data exchange between the ASTER GDS SDPS and the ECS SDPS for DARs will be accomplished via a well-defined API provided by ERSDAC.

  Task Plan: Continue to coordinate with ERSDAC to receive the DAR Client API List.

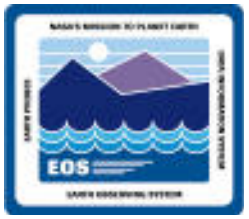
  Projected Resolution Date: 4/96 (Draft) - Received 6/96 (Final)

  Risk Assessment at CDR: Delay in developing Comm-Gateway and ECS Client.

  Risk Assessment at due date: Continued delay could impact start of testing.

  UPDATE: Meeting with ERSDAC 22 April to discuss Work Off Plan Tasks

ICD Delivery Status, Work Off and Closure Plans (cont.)



- **Work Off Plan Examples (Priority A) cont.**
  - **Landsat 7 (International Ground Systems - IGS)**

    Description: IGS data to be provided to ECS is controlled through a Landsat 7 to IGS (NOAA) ICD which is TBS. IGS metadata and browse contents, formats, and file naming which will be controlled by the L7/IGS ICD are TBD.

    Task Plan:

    1) NOAA develops and coordinates L7/IGS ICD. ICD should document agreed-to definition of data to be exchanged.

    2) Update ECS - Landsat 7 ICD with final information.

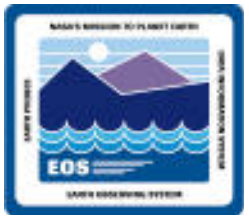
    Projected Resolution Date: 8/96 (updated from ICD published date)

    Risk Assessment at CDR: Major - Undefined Interface within Landsat 7

    Risk Assessment at due date: Major - ECS design may not be able to support the interface

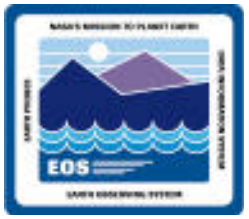
  - **Recommended solution (ECS CDR Baseline): IGS I/F is "like" LPS I/F for metadata and browse data**

ICD Delivery Status, Work Off and Closure Plans (cont.)



- **Closure for Work Off Plans**
  - **Continue interface meetings and working groups to resolve issues**
  - **Use the Work Off Plans as a tool to monitor task completion**
  - **Interface Control Working Group (ICWG) consisting of ESDIS I/F Mgr, ESDIS Book Bosses, EDOS rep., etc., will monitor status of all Work Off Plans and will provide assistance in resolving issues.**

Release B Future Missions - Undefined Interfaces



Release B Future Missions - Undefined Interfaces: IRD and ICD development are not in sync with the Release B development and test schedule.

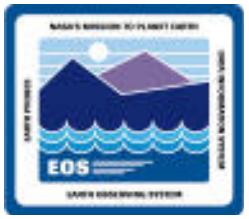
SeaWinds/ADEOS II - NASDA Earth Observation Center (EOC) (Launch - Feb. 1999)

- **Physical ECS interface is at the JPL PO.DAAC**
- **ECS - NASDA IRD due in June 1996 (ECS Lead Author)**
- **ECS - NASDA ICD due in December 1996 (earliest) (NASDA Lead Author)**
- **Preliminary Interface Requirements**
  - **Ingest L0 Data and Ancillary Data.**
  - **Interoperate (2 way) with NASDA - Earth Observation Data and Information System (EOIS)**

RADAR ALT - Launch March 1999

- **Physical ECS interface is at the JPL PO.DAAC**
- **ECS - RADAR ALT IRD "TBD"**
- **ECS - RADAR ALT ICD "TBD"**

Release B Future Missions - Undefined Interfaces (cont.)



ACRIM - Launch June 1999

- **Physical ECS interface is at the JPL PO.DAAC**
- **ECS - ACRIM IRD "TBD"**
- **ECS - ACRIM ICD "TBD"**

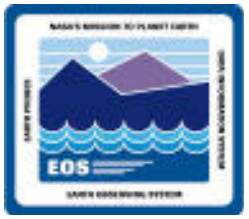
Assumptions for no design impact:

- **Data Transfer Mechanism is one of the standard ECS Ingest protocols, i.e., Polling with Delivery Record**
- **Level 0 is delivered in an CCSDS 'EDOS' like format**
- **Metadata content is defined as per the ECS DID 311 (Appendix B)**
- **Metadata is in P-V-L as per CCSDS**
- **New Ancillary products use standard ingest protocol**
- **Any associated orbit/attitude data is defined within the FDF/EDOS specifications**
- **Security implemented for data transfer is within the ESDIS Security Policy**

Interface Requirements & Definition Need Date

- **Based on development and test schedule for Release B - ICDs must be final 8/1/96**

Next Steps



Complete the ICD Work Off Plans

Delivery Final SAGE III ICD in June 1996

Continue working SeaWinds/ADEOS II requirements and interface

Work with ESDIS and External I/F to define ACRIM and Radar Alt requirements and interfaces